Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

April 21, 2020

Federally Enforceable District Origin Operating Permit (FEDOOP) Statement of Basis

Owner: PPG Architectural Finishes Inc.

Source: PPG Architectural Finishes Inc.

Plant Location: 6804 Enterprise Drive, Louisville, Kentucky 40233

Application Documents:	See Table I-8	Administratively Complete:	07/13/2018
Draft Permit:	03/19/2020	Final Permit:	xx/xx/2020
Permitting Engineer:	Chris Gerstle	Permit Number:	O-0168-20-F
Plant ID: 0168	SIC: 3273	NAICS:	327320

Introduction:

This permit will be issued pursuant to District Regulation 2.17- *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plantwide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

This permit action is for the permit renewal and to incorporate limits to preclude the facility from being subject to the STAR program for toxic air pollutants.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter less than 10 microns (PM_{10}), and particulate matter less than 2.5 microns ($PM_{2.5}$). Jefferson County is classified as a nonattainment area for ozone (O_3). This facility is located in the portion of Jefferson County that is an attainment area for sulfur dioxide (SO_2).

Permit Application Type:

☐ Initial issuance

Permit Revision
- ☐ Administrative
- ☐ Minor
- ☐ Significant

☒ Permit renewal

Compliance Summary:

☐ Compliance certification signed
☐ Source is out of compliance
☐ Compliance schedule included
☒ Source is operating in compliance

I. Source Information

1. **Product Description:** PPG Architectural Finishes Inc. manufactures paint.

2. **Process Description:** Raw materials are stored in storage tanks. Liquid raw materials are mixed in tanks. Pigments are added through the pigment dispersers. During the product finishing step, the paint is thinned, tinted, and blended to become the final product. The final product is transferred through the paint filling lines into pails, paint cans, or other containers for final shipment.

3. **Site Determination:** There are no other facilities that are contiguous or adjacent to this facility.

4. **Emission Unit Summary:**

Emission Unit	Equipment Description
U1	Coating Manufacturing
U2	Storage Tanks
U3	Parts Washers (Insignificant Activity)
U4	Natural Gas Combustion (Insignificant Activity)

5. **Fugitive Sources:** The fugitive sources identified by the source are uncontrolled blending tanks, tinting/thinning tanks, latex and finishing tanks, and filling lines.

6. **Permit Revisions**:

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
N/A	124-97-F	07/31/98	06/14/98	Initial	Entire Permit	Initial Permit Issuance
R1	124-97-F (R1)	04/04/00	03/05/00	Minor	GC, Pages 2-4	Incorporate revisions to General Conditions #4, #11, #12, and #13; New General Conditions #13 and #14
R2	124-97-F (R2)	01/27/03	N/A	Admin	Front Page	Correct expiration date to correspond to 5-year permit term
R3	124-97-F (R3)	03/31/04	12/21/03	Renew	Entire Permit	Permit renewal; incorporate Construction permit 353-03-C
R4	124-97-F (R4)	08/13/13	05/01/13	Renew	Entire Permit	Permit renewal; incorporate Construction permits 194-04-C, 221-04-C, 252-05-C, 364-06-C and 35315-12-C
Initial	O-0168-20-F	04/21/20	03/19/20	Renew	Entire Permit	Permit renewal, added STAR exemption limits; removed Caulk Mixing and C3 Dust Collector; removed Reg. 7.02 and 40 CFR 60 Subpart Kb from emission unit U2; and added Attachment A.

7. Construction Permit History:

Permit No.	Effective Date	Description
277-90-C	10/19/1990	Two raw material storage tanks. Materials are latex emulsion and clay slurry.
6-99-C	01/06/1999	Two (2) bulk storage tanks, 6800 gallons each
75-01-C	03/12/2001	One above-ground storage tank (Number 10) with submerged fill
353-03-C	10/29/2003	One 12,000 gallon fixed roof storage tank for polyurethane resin/Stoddard solvent
194-04-C	02/28/2005	One paint filling line to transfer final product into five-gallon containers
221-04-C	03/31/2005 & 03/31/2006	One (1) Thindown tank, capacity 11,546 gallons
252-05-C	08/15/2005 & 08/31/2006	One (1) 12,000-gallon fixed-roof storage tank (Resydrol)
364-06-C	11/30/2006 & 11/30/2007	Two (2) fixed-roof storage vessels (10,800 gallons each) for storing UCAR Latex 626 and UCAR Latex 379G
35315-12-C	06/22/2012	One caulk mixing system, comprised of mix head and two formulating vessels (attachment #186-90) and one (1) cartridge type dust collector, Torit model #90 (attachment #1-84) to be installed for control of particulates. Both pieces were to be relocated from Plant ID#0175 which was to be decommissioned.
37164-13-C	4/26/2013	One (1) 3,300 gallon dispersion tank, one (1) 200 HP Hockmeyer disperser and one (1) Neupack one-gallon filling line

8. Application and-Related Documents

Document Number	Date	Description
78226	07/08/2016	Demolition of Caulk Department (U1 Caulk Mixing System and Dust Collector) Correspondence
81484	01/26/2017	Storage Tanks with Submerged Fill Correspondence
82180	02/28/2017	STAR Exempt Application
92006	05/14/2018	Renewal Application

9. Removed Equipment:

Caulk Mixing System with Dust Collector and dispersion tank (35315-12-C); Sand Blaster

10. Emission Summary:

Pollutant	District Calculated Actual Emissions (ton/yr) 2015 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	0.0028	No
NO_x	0.0033	No
SO_2	0.0000	No

Pollutant	District Calculated Actual Emissions (ton/yr) 2015 Data	Pollutant that triggered Major Source Status (based on PTE)
PM_{10}	0.52	No
VOC	20.9	*Yes
Total HAPs	0.04	*Yes
Single HAP		
Ethyl Benzene	0.007	*Yes
Ethylene Glycol	0.004	*Yes
Xylene	0.03	*Yes

*The source has accepted synthetic minor limits for these pollutants.

11. Applicable Requirements:

[ ] PSD [ ] 40 CFR 60 [X] SIP [ ] 40 CFR 63
[ ] NSR [ ] 40 CFR 61 [X] District-Origin [ ] Other

12. Referenced Federal Regulations: N/A

13. Non-Applicable Regulations: There are no federal regulations for this facility.

Regulation	Title	Reason for Non-applicability
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	The tanks store a liquid with a maximum true vapor pressure less than 15.0 kPa

II. Regulatory Analysis

1. Acid Rain Requirements: PPG Architectural Finishes Inc. is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. PPG Architectural Finishes Inc. does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. Prevention of Accidental Releases 112(r): PPG Architectural Finishes Inc. does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

4. Basis of Regulation Applicability

a. Plantwide

PPG Architectural Finishes Inc. is a potential major source for the pollutant VOC, single HAP, and total HAP. Regulation 2.17 – F*ederally Enforceable District Origin Operating Permits* establishes requirements to limit the plantwide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements. The source requested limits of the criteria pollutant PM_{10} < 25 ton/yr, and Total HAPs < 12.5 ton/yr and largest single HAP < 5.0 ton/yr, to be a FEDOOP STAR Exempt source as defined by Regulation 5.00, section 1.13.5. The source was potentially major for PM_{10}, but with the removal of Caulk Mixing System, the source is no longer major for PM_{10}.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. PPG Architectural Finishes Inc. took the total plantwide limits of 25 tpy for criteria pollutants 12.5/5.0 tpy for Total HAPs and single HAP to be a FEDOOP STAR Exempt source.

Regulation 2.17, section 5.2, requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the district upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued to submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an Annual Compliance Report to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

b. **Emission Unit U1 –** Coating Manufacturing

i. Equipment:

Emission Point	Description	Applicable Regulation
E1	Tinting/Thinning Tank, 1,800 Gallons	6.24
E2	Tinting/Thinning Tank, 1800 Gallons	
E3	Tinting/Thinning Tank, 3,300 Gallons	
E4	Tinting/Thinning Tank, 3,300 Gallons	
E5	Tinting/Thinning Tank, 3,300 Gallons	
E6	Tinting/Thinning Tank, 3,300 Gallons	
E7	Tinting/Thinning Tank, 3,300 Gallons	
E8	Tinting/Thinning Tank, 3,300 Gallons	
E9	Tinting/Thinning Tank, 3,300 Gallons	

Emission Point	Description	Applicable Regulation
E10	Tinting/Thinning Tank, 3,300 Gallons	6.24
E11	Tinting/Thinning Tank, 7,000 Gallons	
E12	Tinting/Thinning Tank, 7,000 Gallons	
E13	Tinting/Thinning Tank, 7,000 Gallons	
E14	Tinting/Thinning Tank, 7,000 Gallons	
E15	Tinting/Thinning Tank, 1,500 Gallons	
E16	Tinting/Thinning Tank, 1,500 Gallons	
E17	Tinting/Thinning Tank, 600 Gallons	
E18	Tinting/Thinning Tank, 500 Gallons	
E19	Tinting/Thinning Tank, 500 Gallons	
E20	Tinting/Thinning Tank, 500 Gallons	
E21	Tinting/Thinning Tank, 500 Gallons	
E22	Tinting/Thinning Tank, 500 Gallons	
E23	Tinting/Thinning Tank, 500 Gallons	
E24	Tinting/Thinning Tank, 500 Gallons	
E25	Tinting/Thinning Tank, 500 Gallons	
E26	Tinting/Thinning Tank, 500 Gallons	
E27	Tinting/Thinning Tank, 500 Gallons	
E28	Tinting/Thinning Tank, 500 Gallons	
E29	Tinting/Thinning Tank, 500 Gallons	
E30	Tinting/Thinning Tank, 500 Gallons	
E31	Tinting/Thinning Tank, 500 Gallons	
E32	Tinting/Thinning Tank, 500 Gallons	
E33	Tinting/Thinning Tank, 2,500 Gallons	
E34	Tinting/Thinning Tank, 2,500 Gallons	
E35	Tinting/Thinning Tank, 2,500 Gallons	
E36	Tinting/Thinning Tank, 2,500 Gallons	
E37	Tinting/Thinning Tank, 2,500 Gallons	
E38	Tinting/Thinning Tank, 2,500 Gallons	
E39	Tinting/Thinning Tank, 2,500 Gallons	
E40	Tinting/Thinning Tank, 2,500 Gallons	
E41	Tinting/Thinning Tank, 2,500 Gallons	
E42	Tinting/Thinning Tank, 2,500 Gallons	
E43	Tinting/Thinning Tank, 2,500 Gallons	
E44	Tinting/Thinning Tank, 2,500 Gallons	
E45	Pigment Disperser Myers 100 HP	6.09 and 6.24
E46	Pigment Disperser Myers 100 HP	
E47	Pigment Disperser Myers 50 HP	
E48	Pigment Disperser Myers 50 HP	
E49	Tank, 1,000 Gallon	
E50	Tank, 1,000 Gallon	
E51	Tank, 1,000 Gallon	
E52	Tank, 1,000 Gallon	
E53	Tank, 600 Gallon	
E54	Tank, 600 Gallon	

Emission Point	Description	Applicable Regulation
E55	Tank, 600 Gallon	6.09 and 6.24
E56	Tank, 600 Gallon	
E57	Tank, 250 Gallon	
E58	Disperser Myers 100 HP	
E59	Disperser Myers 100 HP	
E60	Disperser Myers 50 HP	
E61	Holding Tank 2,000 Gallon	6.24
E62	Holding Tank 2,000 Gallon	
E63	Holding Tank 2,000 Gallon	
E64	Latex and Finishing Tank 3,300 Gallon	
E65	Latex and Finishing Tank 3,300 Gallon	
E66	Latex and Finishing Tank 3,300 Gallon	
E67	Latex and Finishing Tank 3,300 Gallon	
E68	Latex and Finishing Tank 3,300 Gallon	
E69	Latex and Finishing Tank 3,300 Gallon	
E70	Latex and Finishing Tank 3,300 Gallon	
E71	Latex and Finishing Tank 3,300 Gallon	
E72	Latex and Finishing Tank 3,300 Gallon	
E73	Latex and Finishing Tank 3,300 Gallon	
E74	Latex and Finishing Tank 3,300 Gallon	
E75	Latex and Finishing Tank 3,300 Gallon	
E76	Latex and Finishing Tank 3,300 Gallon	
E77	Latex and Finishing Tank 3,300 Gallon	
E78	Latex and Finishing Tank 3,300 Gallon	
E79	Latex and Finishing Tank 3,300 Gallon	
E80	Latex and Finishing Tank 3,300 Gallon	
E81	Latex and Finishing Tank 3,300 Gallon	
E82	Latex and Finishing Tank 3,300 Gallon	
E83	Latex and Finishing Tank 3,300 Gallon	
E84	Latex and Finishing Tank 3,300 Gallon	
E85	Latex and Finishing Tank 3,300 Gallon	
E86	Blending Tank, 450 Gallon	
E87	Blending Tank, 450 Gallon	
E88	Blending Tank, 600 Gallon	
E89	Blending Tank, 12,000 Gallon	
E90	Ambrose Paint Filling Line	7.25
E91	Small Can Filling Line	
E92	F-Style Container Filling Line	
E93	Machine 1 Gallon Filling Line	
E94	Machine 2 Gallon Filling Line	
E95	Machine 4 Gallon Filling Line	
E96	Neupak 5 Gallon Filling Line	
E98	Thindown Tank (MB1), 11,546 Gallons	
E98a	Thindown Tank (MB2), 11,546 Gallons	

Emission Point	Description	Applicable Regulation
E101	Neupak one-gallon filling line	7.25
E100	3,300 Gallon Dispersion Tank w/200 HP Hockmeyer disperser	7.08 & 7.25

ii. **Standards/Operating Limits**

1) **Opacity**

Regulations 6.09, section 3.2, and 7.08, section 3.1.1 establish an opacity standard of less than 20%.

2) **PM/PM_{10}**

(a) Regulation 6.09, section 3.2 establishes PM standards for process equipment. Per Table 1 to Regulation 6.09, the maximum allowable emission rate is 2.58 lb PM/hr for equipment with a process weight rate of less than or equal to 1,000 pounds per hour.

(b) Regulation 7.08, section 3.1.2 establishes PM standards for process equipment. Per Table 1 to Regulation 7.08, the maximum allowable emission rate is 2.34 lb PM/hr for equipment with a process weight rate of less than or equal to 1,000 pounds per hour.

3) **VOC**

(a) Regulation 7.25 establishes a plantwide VOC limit of 5 tons per year for all affected facilities, unless Best Available Control Technology (BACT) level of control is utilized to reduce the VOC emissions.

(b) Regulation 6.24 limits the pound per hour and pound per day emissions of Class II and Class III solvents, unless the emissions are reduced by at least 85%.

c. **Emission Unit U2 –** Storage Tanks

i. **Equipment:**

Emission Point	Description Make/Model	Applicable Regulation
E102	Exterior Storage Tank #2, 14,000 Gallons	6.13
E103	Exterior Storage Tank #3, 14,000 Gallons	
E104	Exterior Storage Tank #1, 14,000 Gallons	
E105	Exterior Storage Tank #5, 20,000[1] Gallons	
E106	Exterior Storage Tank #6, 20,000[1] Gallons	
E107	Exterior Storage Tank #9, 20,000[1] Gallons	6.13
E108	Interior Storage Tank #15, 12,000 Gallons	
E109	Interior Storage Tank #16, 12,000 Gallons	

[1] 40 CFR 60 Subpart Kb does not apply per §60.110b(b) because the tanks store a liquid with a maximum true vapor pressure less than 15.0 kPa.

Emission Point	Description Make/Model	Applicable Regulation
E110	Interior Storage Tank #20, 10,000 Gallons	6.13
E111	Interior Storage Tank #18, 10,000 Gallons	
E112	Interior Storage Tank #17, 10,000 Gallons	
E113	Interior Storage Tank #19, 10,000 Gallons	
E114	Double Compartment Holding Tanks #21 & 22 with 2,000 Gallon Storage Compartments with submerged fill	7.12
E115	Double Compartment Holding Tanks #23 & 24 with 2,000 Gallon Storage Compartments with submerged fill	
E116	Exterior Storage Tank #7, 20,0001 Gallons	
E117	Exterior Storage Tank #8, 20,0001 Gallons	
E118	Exterior Storage Tank #4, 20,0001 Gallons	
E119	Interior Storage Tank #14, 12,000 Gallon with submerged fill pipes	
E120	Interior Storage Tank #25, 12,000 Gallons	
E121	Interior Storage Tank #26, 12,000 Gallons	
E122	Interior Storage Tank #11, 6,800 Gallons	
E123	Interior Storage Tank #12, 6,800 Gallons	
E124	Exterior Storage Tank #10, 20,0001 Gallon with submerged fill pipes	
E125	Interior Storage Tank #27, 12,000 Gallons	
E126	Interior Storage Tank #28, 10,800 Gallons	
E127	Interior Storage Tank #29, 10,800 Gallons	

ii. **Standards/Operating Limits**

1) **VOC**

Regulations 6.13 and 7.12 establish requirements for storage vessels greater than 250 gallons for volatile organic compounds. Regulation 7.12/6.13, section 3.3 require submerged fill if the materials have an as stored vapor pressure of 1.5 psia or greater. There are no applicable emission or equipment standards if the vapor pressure as stored is less than 1.5 psia.

d. **Emission Unit U3 – Parts Washers** (Insignificant Activity)

i. **Equipment:**

Emission Point	Description	Applicable Regulation
E128	Selig Chemical Industries Parts Washer	6.18
E129	Selig Chemical Industries Parts Washer	
E130	Parts Washer with Secondary Reservoirs	
E131	Parts Washer with Secondary Reservoirs	

ii. **Standards/Operating Limits**

1) **VOC**

Regulation 6.18 establishes requirements for cold cleaners that use volatile organic compounds (VOCs) to remove soluble impurities from metal surfaces.

e. **Emission Unit U4 – Natural Gas Combustion** (Insignificant Activity)

i. **Equipment:**

Emission Point	Description	Applicable Regulation
E132	1.043 MMBtu/hr Natural Gas Boiler, Hydrotherm, MR-1500B	7.06
E133	1.043 MMBtu/hr Natural Gas Boiler, Hydrotherm, MR-1500B	
E134	1.26 MMBtu/hr, Natural Gas Boiler, Fulton ICS-030-A, 1996	

ii. **Standards/Operating Limits**

1) **Opacity**

Regulation 7.06, section 4.2 establishes a standard for opacity to not equal or exceed 20% for indirect heat exchangers having an input capacity of more than one million BTU per hour.

2) **PM**

Regulation 7.06, section 4.1.1 establishes a standard for PM to not equal or exceed 0.56 pounds per million BTU actual heat input for a total heat input capacity of 10 million BTU per hour or less.

3) **SO_2**

Regulation 7.06, section 5.1.1 establishes a SO_2 standard of 1 lb per million BTU actual heat input capacity for a total heat input capacity of 145 million BTU per hour or less.

III. Other Requirements

1. **Temporary Sources:** The source did not request to operate any temporary facilities.
2. **Short Term Activities:** The source did not report any short term activities.
3. **Emissions Trading:** N/A
4. **Operational Flexibility**: The source did not request any operation flexibility.
5. **Compliance History:** N/A

6. Calculation Methodology or Other Approved Method:

Table 1 - U1

Emission Point	Description	Emission Factor/ Calculation Methodology
E1 – E44	Forty-four (44) Tinting/Thinning Tanks	EIIP, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities or AP-42 Table 6.4-1
E45 – E48	Four (4) Pigment Dispersers	
E49 - E57	Nine (9) Tanks	
E58 – E60	Three (3) Dispersers	
E61 - E63	Three (3) Holding Tanks for final product	
E64 - E85	Twenty-two (22) Latex and Finishing Tanks	
E86 – E89	Four (4) Blending Tanks	
E90 – E96, E135	Seven (7) Filling Lines	
E98, E98a	Thindown Tank	
E101	Neupak One Gallon Filling Line	
E100	Dispersion Tank w/ Hockmeyer disperser	

Table 2 - U2

Emission Point	Description Make/Model	Emission Factor/ Calculation Methodology
E102 – E107, E116 – E118, E124	Ten (10) Exterior Storage Tanks (E124 with submerged fill pipes)	AP-42, Chapter 7
E108 – E113, E119, E120 - E123, E125 – E127	Fourteen (14) Interior Storage Tanks	
E114 – E115	Two (2) Holding Tanks with submerged fill	

Table 3 - U3

Emission Point	Description	Emission Factor/ Calculation Methodology
E128 – E131	Four (4) Parts Washers	Material Balance

Table 4 - U4

Emission Point	Description	Emission Factor/ Calculation Methodology
E132 – E134	Three (3) Natural Gas Boilers, 3.346 MMBtu/hr total capacity	AP-42, Table 1.4-1

Table 5 - Insignificant Activities

Description	Emission Factor/Calculation Methodology
Lab	Material Balance

7. Insignificant Activities

Equipment	Quantity	PTE (tpy)	Basis for Exemption
Laboratory ventilating and exhausting systems which are not used for radioactive air contaminants	1	0.07 tpy VOC	Regulation 1.02, Appendix A

1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.

2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.

3) The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.

4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.

6) The District has determined that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.